

Product datasheet for **RG219034**

Endostatin (COL18A1) (NM_030582) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Endostatin (COL18A1) (NM_030582) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	COL18A1
Synonyms:	GLCC; KNO; KNO1; KS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG219034 representing NM_030582 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTCCCTACCCCTGTGGCTGCCACATCCTGCTGCTGCTCTTCTGCTGCCTGGCGGCTGCCGGGCCA
ACCTGCTGAACCTGAACCTGGCTTTGGTTCAATAATGAGGACACCAGCCATGCAGCTACCACGATCCCTGA
GCCCCAGGGGCCCTGCCTGTGCAGCCCACAGCAGATACCACCACACACGTGACCCCCGGAATGGTTCC
ACAGAGCCAGCGACAGCCCTGGCAGCCCTGAGCCACCCTCAGAGCTGCTGGAAGATGGCCAGGACCC
CCACTTCTGCCGAGACCCGGACGCGCCAGAGGAGAACATTGCCGGTGTCCGAGCCGAGATCCTGAACGT
GGCCAAAGGCATCCGGAGCTTCGTCCAGCTGTGGAATGACACTGTCCCCACTGAGAGCTTGCCAGGGCG
GAAACCTGGTCCTGGAGACTCCTGTGGGCCCCCTTGCCCTCGCTGGGCCTTCCAGCACCCCCAGGAGA
ATGGGACCACTCTCTGGCCAGCCGTGGCATTCTAGCTCTCCGGGCGCCACACAACCGAGGCTGGCAC
CTTGCCTGCACCCACCCATCGCTCCCTCCCTGGGCAGGCCCTGGGCACCACTCACGGGCCCTCAGTG
CCACCACCATCTCAGAGCGCATCAGCGAGGAGTGGGGCTGCTGCAGCTCCTTGGGGACCCCCGCC
AGCAGTACCCAGACGGATGACCCGACGTCCGGCTGGCCTACGTCCTTGGGCCAGATGCCAACAGTGG
CCAAGTGGCCCGGTACCACTTCCCAGCCTCTTCTCCGTGACTTCTACTGCTGTTCCACATCCGGCCA
GCCACAGAGGGCCAGGGGTGCTGTTCCGCATCACGGACTCGGCGCAGGCCATGGTCTTGTGGCGTGA
AGCTCTCTGGGGTGCAGGACGGGACCAGGACATCTCCCTGCTCTACACAGAACCAGGTGCAGGCCAGAC
CCACACAGCCGCCAGCTTCCGGCTCCCCGCCTTCGTCCGGCAGTGGACACACTTAGCCCTCAGTGTGGCA
GGTGGCTTTGTGGCCCTTACGTGGACTGTGAGGAGTTCAGAGAATGCCGCTTGCTCGGTCTCACGGG
GCCTGGAGCTGGAGCCTGGCGCCGGGCTTTCGTGGCTCAGGCGGGGGAGCGGACCCTGACAAGTTCCA
GGGGGTGATCGCTGAGCTGAAGGTGCGCAGGGACCCCCAGGTGAGCCCCATGCACTGCCTGGACGAGGAA
GGCGATGACTCAGATGGGCATCCGGAGACTCTGGCAGCGGGCTCGGGGACGCCGGGAGCTTCTCAGGG
AGGAGACGGGCGGCCCTAAAACCCAGGCTCCCCGCCACCCCCGTACCACGCCACCCTTGCTGG
AGGCAGCAGCACGAAGATTCCAGAAGTGAAGAAGTCGAGGAGCAGACCAGGTGGCTTCGTTAGGAGCT



[View online >](#)

CAGACTTCTGGCTCAGATTCTGTCTCCACGTGGGACGGGAGTGTCCGGACCCCTGGGGCCGCGTGA
AAGAGGGCGCCCTGAAGGGGCAGAAAGGGGAGCCAGGTGTTCCGGGCCACCTGGCCGGGACGGCCCC
AGGATCCCATGCCTACCTGGTCCCCGGGTCTCCCGTGCCAGTGAGTCCCCTGGTCTGCAGGCCCA
GCGTTGCAAAGTGTCCCGGACCACAAGGACCCCCAGGGCTCCGGGGAGGGACGGCACCCCTGGAAGGG
ACGGCGAGCCGGGCGACCCCGGTGAAGACGAAAGCCGGGCGACACCGGGCCACAAGGCTTCCCGGGAC
TCCAGGGGACGTAGTCCAAGGGCGACAAGGGAGACCTGGGGTTGGAGAGAGAGGGCCCCAGGACCC
CAAGGGCTCCAGGGCCCCAGGACCTCTTCAGACACGACAAGCTGACCTTCATTGACATGGAGGGAT
CTGGCTTCGGGGCGATCTGGAGGCCCTCGGGGTCTCGAGGCTTCCCTGGACCTCCCGACCCCGCG
TGTCACAGGCTGCCCGGCGAGCCAGGCGCTTTGGGGTGAACAGCTCCGACGTCCAGGACCCGCGCG
CTTCTGGTGTGCTGGGCGGAGGGTCCCCCGGGTTTCTGGCCTCCCGGACCCCAAGGCTCCCGG
GAAGAGAGGGGCCCCAGGAAGGACTGGGAGAAAGGAGCCTGGGTGAAGCAGGCGCCCAAGGACATAA
GGGAGCAAGGGAGCCCCGGTCTGCTGGTGTCTGTGGGAGAGCGGCTGGCAGGAGCCCCGGACCT
GCTGGACCACAGGCCCCCTGGGCCCTGGGCCCAAGGACAGGACTCCCGCTGGATTTGATGACA
TGAAGGCTCCGGGGGCCCTTCTGGTCAACAGCCGAAGCGCTGATGGCCACAGGACCTCCCGGCT
GCCGGACTTAAGGGGATCCTGGCGTGTCTGGGCTGCCGGGGCGAAGGGAGAAGTTGGAGCAGATGGA
GTCCCGGGTTCCTCCGGCTCCCTGGCAGAGAGGCAATTGCTGGGCCCAAGGGGCAAAGGGAGACAGAG
GCAGCCGGGAGAAAAGGGAGATCCAGGAAGGACGGAGTCGGGACCGGGCTCCCTGGCCCCCGG
ACCCCGGGACCTGTGGTCTACGTGTGGAGCAGGACGGATCCGTCTGAGCGTCCCGGGACCTGAGGGC
CGGCCGGTTTCGAGGCTTTCCTGGACCTGCAGGACCAAGGGCAACCTGGGCTCTAAGGGCGAACGAG
GCTCCCGGGACCAAGGGTGAAGGGTGAACCGGCGAGCATCTTACGCCCCAGCGGGTGCCTGGG
CCCTGCCAGAAAGGAGCAAGGGAGAGCCGGGCTTCCGAGGACCCCGGGTCCATACGGACGGCCGGG
TACAAGGAGAGATTGGCTTTCCTGGACGGCGGGTCCCGGGGATGAACGATTGAAAGGAGAGAAA
GGAGCCGGGAGATGCCAGCCTTGATTTGGCATGAGGGGAATGCCGGCCCCCAAGGACCTCCAGGGCC
CCAGGGCTCCAGGACTCCTGTTACGACAGCAATGTGTTGCTGAGTCCAGCCGCCCCGGGCTCCA
GGATTGCCAGGAATCAGGGCCCTCAGGACCCAAAGGGCGCAAAGGAGAAGTGGCCCCCGGACCAC
CAGGGCAGTTTCCGTTTACTTTCTTCACTTGGAGGCTGAAATGAAGGGGAGAAAGGAGACCGAGGTGA
TGCAGGACAGAAAGGCGAAAGGGGGAGCCCGGGGCGGCGTTTCTTCGGCTCCAGCCTGCCGGCCCC
CCCGCCCCCAGGCCACGTGGTACCCTGGGATTCCAGGTCCAAGGGAGAGAGCATCCGGGGCCAGC
CCGGCCACCTGGACCTCAGGGACCCCGGCATCGGCTACGAGGGGCGCCAGGGCCCTCCCGCCCCC
AGGCCCCCCAGGGCCCCCTCATTCTGGCCCTCACAGGCACTATCAGCGTTCCTGGCCCTCCGGG
CCCCCTGGGCCCTGGGCCCTGGAACCATGGGCGCTCCTCAGGGGTGAGGCTCTGGGCTACACGCC
AGGCCATGCTGGGCCAGGTGCACGAGGTTCCCGAGGGCTGGCTCATCTTGTGGCCGAGCAGGAGGAGCT
CTACGTCCCGGTGCAAGACGGGTTCCGGAAGGTCCAGCTGGAGGCCCGGACACCCTCCACGAGGGACG
GACAATGAAGTGGCCGCTTGCAGCCCCCGTGGTGCAGCTGCACGACAGCAACCCTACCCGCGGGGG
AGCACCCACCCACCGCGCGGCCCTGGCGGGCAGATGACATCTGGCCAGCCCCCTCGCTGCCCGA
GCCCCAGCCCTACCCGGAGCCCGCACACAGCTCCTACGTGCACCTGCGGCGGGCGGACCCACAAGC
CCACCCGCCACAGCCACCGGACTTCCAGCCGGTGTCCACCTGGTTCGCTCAACAGCCCCCTGTCAG
GCGGATGCGGGGATCCCGGGGCGGACTTCCAGTGTTCAGCAGGCGGGCCGTGGGGTGGCGG
CACCTTCCGCGCTTCTGTCTCGCGCTGCAGGACCTGTACAGCATCGTGCCTGCGGCGCCGACCGCGCA
GCCGTGCCATCGTCAACCTCAAGGACGAGCTGCTGTTTCCAGCTGGGAGGCTCTGTTCTCAGGCTCTG
AGGGTCCGCTGAAGCCGGGCGACGATCTTCTCTTTGACGGCAAGGACGTCTGAGGCACCCACCTG
GCCCGAAGAGCGTGTGGCATGGCTCGGACCCCAAGGGCGCAGGCTGACCGAGAGCTACTGTGAGAGC
TGGCGGACGAGGCTCCCTCGGCCACGGCCAGGCTCCTCGTGTGGGGGCGAGGCTCTGGGGCAGA
GTGCCGAGCTGCCATCAGCCTACATCGTGTCTGCATTGAGAACAGCTTCATGACTGCCTCAAAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG219034 representing NM_030582
 Red=Cloning site Green=Tags(s)

```

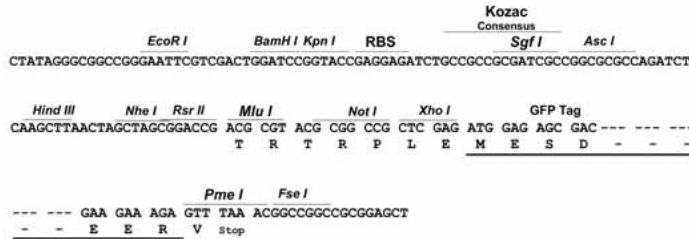
MAPYPCGCHILLLLFCCLAAARANLLNLNWLWFNNEDTSHAATTIPEPQGGLPVQPTADTTTHVTPRNGS
TEPATAPGSPEPPSELLEDGQDTPTSAESPDPEENIAGVGAELNVAKGIRSFVQLWNDTVPTESLARA
ETLVLETPVGPLALAGPSTPQENGTTLWPSRGIPSSPGAHTTEAGTLPAPTSPPSLGRPWAPLTGPSV
PPSSSERISEEVGLLQLLGDPPPQVVTQTDVDPVGLAYVFGPDANSQVARYHFPSLFFRDFSLLFHIRP
ATEGPGVLFVITDSAQAMVLLGVKLSGVQDGHQDISLLYTEPGAGQHTAASFRLPAFVQWTHLALSVA
GGFVALYVDCEEFQRMPLARSSRGLLELEPGAGLFVAQAGGADPKFQGVIAELKVRDPQVSPMHCLDEE
GDDSDGASGDSGSLGDARELLREETGAALKPRLPAPPPVTTPLAGGSSTEDSRSEEVEEQTTVASLGA
QTLPGSDSVSTWDGSRVTPGGRVKEGGLKQKGEVGPVGGPPGRAGPPGSPCLPGPPGLPCPVSLGPAGP
ALQTVPGPQGGPPGRDGTGRDGEVGPEDGKPGDTGPQGFPGTGDVGPKGDKGDPGVGERGPPGP
QGGPPGPPGPFRRHDKLTFIDMEGSGFGGDEALRGPRGFPGGPPGVPGLPGEPGRFGVNSSDVPGPAG
LPGVPGREGPPGFPGLPGPPGPPGREGPPGRTGQKGSLSGEAGAPGHKSGKAPGAPAGARGESGLAGAPG
AGPPGPPGPPGPPGGLPAGFDDMEGSGGPFWSTARSADGPQGGPGLPGLKGDVGPVGLPGAKGEVADG
VPGFPGLPGREGIAGPQPKGDRGRSGEKDGPDKDVGQVQGLPGPPGPPGVVYVSEQDGSVLSVPGPEG
RPGFAGFPGPAGPKGNLGSKGERGSPGPKGKGEKGPSTIFSPDGGALGPAKQKAKGEPGRFPGGPYGRPG
YKGEIGFPRGPRGMNGLKGEKGEVGDASLGFMRGMPPGPPGPPGPPGTPVYDSNVFAESSRPGPP
GLPGNQGGPPGPKGAKGEVGPVGGPPGQPFDFLQLEAEMKGEKGDGDAGQKGERGEPGGGGFFGSSLPGP
PGPPGPRGYPGIPGPKGESIRGQPGPPGQGGPIGYEGRQGGPPGPPGPPGPPSPFPGPHRQTI SVPGPPG
PPGPPGPPGTMGASSGVRLWATRQAMLQVHEVPEGLIFVAEQEEL YVRVQNGFRKVVQLEARTPLPRGT
DNEVAALQPPVVQLHDSNPYPRREHPHTARPWRADDILASPPRLPEPQYPGAPHHSSVYHLRPARPTS
PPAHSRDFQPVHLVALNSPLSGMIRGADFCQFQARAVGLAGTFRAFLSSRLQDLYSIVRRADRA
AVPIVNLKDELLFPSWEALFSGSEGPLKPGARIFSFQDKDVLRHPTWPKSVWHGSDPNRRRLTESYCET
WRTEAPSATGQASSLLGGRLLGQSAASCHHAYIVLCIENSFMTASK
  
```

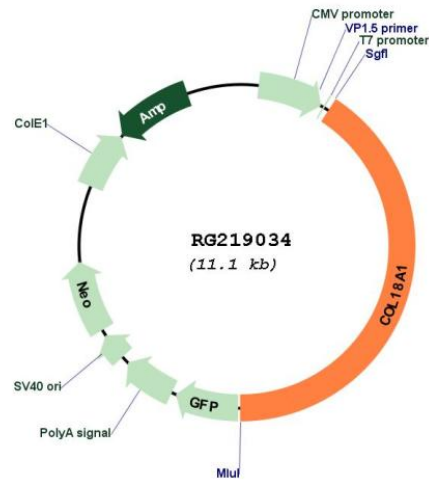
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_030582

ORF Size: 4548 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_030582.4](#)

RefSeq Size: 5910 bp

RefSeq ORF: 4551 bp

Locus ID: 80781

UniProt ID: [P39060](#)

Cytogenetics: 21q22.3

Gene Summary: This gene encodes the alpha chain of type XVIII collagen. This collagen is one of the multiplexins, extracellular matrix proteins that contain multiple triple-helix domains (collagenous domains) interrupted by non-collagenous domains. A long isoform of the protein has an N-terminal domain that is homologous to the extracellular part of frizzled receptors. Proteolytic processing at several endogenous cleavage sites in the C-terminal domain results in production of endostatin, a potent antiangiogenic protein that is able to inhibit angiogenesis and tumor growth. Mutations in this gene are associated with Knobloch syndrome. The main features of this syndrome involve retinal abnormalities, so type XVIII collagen may play an important role in retinal structure and in neural tube closure. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2014]